

THE CLAIMS

What is claimed is:

1. A method for making a dispensing apparatus portion which comprises:
5 providing a shotblasting layer onto a portion of a substrate so as to compress the surface thereof, wherein the shotblasting layer is provided by a plurality of fine and uniform granules of steel pellets having a grain size of about 0.3 to 0.6 mm and stainless steel pellets having a grain size of about 0.14 to 0.5 mm at a velocity of at least about 50 m/s; and
providing a plurality of metal plated layers over the shotblasting layer, wherein the
10 shotblasting layer and metal plated layers together are present in an amount and thickness sufficient to increase the corrosion and abrasion resistance of the substrate and wherein the substrate forms a portion of the dispensing apparatus.
2. The method of claim 1, wherein the providing of the plated metal layers comprises
15 plating a copper layer first, then a nickel layer, and then a chrome layer.
3. The method of claim 2, wherein the plurality of plated metal layers collectively has a thickness of about 15.3 to 30.3 μm .
- 20 4. The method of claim 1, wherein the substrate comprises a push rod that is adapted to contact a dispensable material.
5. The method of claim 4, wherein the shotblasting layer and the metal plated layers together provide a reduced-friction coating that facilitates extrusion of a flowable pasty substance
25 from the dispensing apparatus.
6. An apparatus comprising:
a substrate with a shotblasted layer on a portion of a surface thereof; and
a plurality of plated layers disposed over the shotblasted layer,
30 wherein the plated layers are successively a copper layer, a nickel layer and a chrome layer.

7. The apparatus of claim 6, wherein the substrate comprises a push rod capable of dispensing a flowable substance.

8. The apparatus of claim 6, wherein the shotblasted layer is about 8 to 12 μm in thickness.

9. The apparatus of claim 6, wherein the plated layers are collectively about 15.3 to 30.3 μm in thickness.

10. The apparatus of claim 6, wherein the plated layers comprise successively of a copper layer of about 10 to 20 μm in thickness, a nickel layer of about 5 to 10 μm in thickness, and a chrome layer of about 0.1 to 0.5 μm in thickness.

11. The apparatus of claim 6, wherein the apparatus comprises a dispensing article.

12. The apparatus of claim 6, wherein the dispensing article comprises a caulk gun or portion thereof.

13. A dispensing apparatus having a chamber configured and dimensioned to receive flowable pasty material and a push rod operatively associated with the chamber to facilitate extrusion of the flowable pasty material, wherein the improvement comprises providing a cladding structure to a portion of the push rod which comprises:

a shotblasted layer over a portion of a surface of the push rod; and

a plurality of metal plated layers of a predetermined thickness provided over a portion of the shotblasted area.

14. The dispensing apparatus of claim 13, wherein the shotblasted layer is about 8 to 12 μm in thickness.

15. The dispensing apparatus of claim 13, wherein the plurality of plated layers are collectively about 15.3 to 30.3 μm in thickness.

16. The dispensing apparatus of claim 13, wherein the plated layers comprise a copper layer of about 10 to 20 μm in thickness, a nickel layer of about 5 to 10 μm in thickness, and a chrome layer of about 0.1 to 0.5 μm in thickness.

17. The dispensing apparatus of claim 16, wherein the nickel layer is disposed between the copper layer and the chrome layer.

18. The dispensing apparatus of claim 16, wherein the chrome layer is disposed over a portion of the copper layer and the nickel layer.

19. The dispensing apparatus of claim 16, wherein the plated layers are successively disposed with the copper layer being adjacent to the substrate, with the nickel layer being disposed on the copper layer, and the chrome layer being disposed on the nickel layer.

20. The dispensing apparatus of claim 16, wherein the dispensing apparatus comprises a caulk gun and the flowable pasty material comprises caulk.